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BEFORE THE  
**FEDERAL COMMUNICATIONS COMMISSION**

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FEDERAL COMMUNICATIONS COMMISSION  
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In the Matter Of:

Amendment of Parts 1, 2, and 21  
of the Commission's Rules  
Governing the Use of the  
Frequencies in the 2.1 and  
2.5 GHz Bands

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) PR Docket No. 92-80  
) RM-7909  
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ORIGINAL  
FILE

To: The Commission

JOINT COMMENTS OF ITFS PARTIES

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## SUMMARY

These Joint Comments are submitted by ITFS Parties who actively use their ITFS facilities for educational purposes. The ITFS Parties do not challenge the need for the Commission to streamline MDS processing. However, the proposals impact on issues of importance to ITFS operators and their legitimate interests must be protected.

The ITFS Parties do not advocate any particular locus of MDS processing and regulation in the Commission. However, they do not want to see ITFS processing or regulation shifted to the Private Radio Bureau, and they urge the Commission not to further burden the already over-burdened Distribution Services Branch by placing MDS responsibility there. ITFS processing itself is bogged down, and additional resources are necessary for both MDS and ITFS processing.

The ITFS Parties also do not take a position on the use of mileage separation standards for MDS. However, they believe such standards are not appropriate for ITFS, which requires individualized consideration of receive sites, many of which are located well beyond the protected service radius of MDS stations. In addition, many ITFS stations are and must be designed with antenna heights in excess of 180 meters HAAT.

The ITFS Parties object to the proposal for processing MDS applications vis-a-vis ITFS stations only by reference to mileage separations, and then to apply a post-grant/post-construction window of 30 days for ITFS Parties to object to interference. Pre-grant processing of MDS applications must protect ITFS stations from

predicted interference. Then, the post-grant window must be at least 120 days to permit ITFS licensees sufficient time to experience and respond to actual interference. In addition, ITFS receive sites must be permanently protected from interference even where, for legitimate reasons, the interference is not manifest within the 120-day window.

The ITFS Parties accept the proposal to eliminate special notices and extra time for ITFS operators to respond to predicted interference problems. However, it must be made clear that ITFS parties may still file petitions to deny MDS applications that are predicted to cause interference.

Finally, the ITFS Parties support the proposal to develop MDS and ITFS databases to aid in computerized processing of applications. However, the already on-going efforts to develop an ITFS database are seriously flawed and must be corrected. Also, the FCC must plan to put both MDS and ITFS databases out for public comment and correction in order to ensure that they are accurate and complete.



police and fire stations). Among the ITFS Parties is the nation's largest ITFS user, South Carolina Educational Television Commission, whose statewide ITFS system will consist of about 70 individual stations. The University of Maine System is also developing an ITFS system with state-wide coverage consisting of 30 stations. Several of the parties, including the State of Wisconsin-Educational Communications Board and the Iowa Public Broadcasting Board, in addition to being ITFS licensees themselves, are state agencies that coordinate extensive ITFS usage within their states by other educational institutions. All of the ITFS Parties are acutely interested in FCC proposals that could affect the development and timely implementation of their educational plans.

The NPRM proposes changes in the FCC's rules and procedures in order to streamline processing of MDS applications and thereby enable wireless cable operators to realize more fully their competitive potential vis-a-vis traditional cable systems. The ITFS Parties do not challenge the necessity for Commission action to help resolve the current MDS processing morass. However, the proposals also impact on ITFS applicants and licensees. The potential areas of concern are discussed in more detail below. Generally, however, the ITFS Parties urge the Commission to proceed only in a manner that preserves or enhances swift ITFS processing and sensitive ITFS regulation, and that ensures full protection of ITFS operators from interference from MDS stations.

#### Issue 1 - Relocation of MDS and/or ITFS Processing Responsibilities

The ITFS Parties take no position on whether processing of MDS applications should be relocated to the Private Radio Bureau Licensing Division in Gettysburg or kept in Washington at the Common Carrier Bureau or elsewhere. The

Private Radio Bureau has shown itself to be relatively efficient at placing applications on public notice and processing them. However, the Part 94 applications currently processed by the Private Radio Bureau are subject to frequency coordination prior to filing. It is not clear how well the Private Radio Bureau would handle processing of applications that are not subject to prior coordination, that involve complicated interference and other technical analyses and that might be subject to frequent petitions to deny based on interference and other grounds. It is certainly not clear that the Private Radio Bureau would be better able than the Common Carrier Bureau to process tens of thousands of MDS applications without substantial additional resources.

The ITFS Parties are concerned that these proposals could impact negatively on ITFS processing. Their concerns are in two areas: (1) the ITFS Parties do not want to see overall ITFS processing shifted to Gettysburg along with MDS; and (2) they do not want to see the already overburdened Distribution Service Branch staff in the Mass Media Bureau further burdened with MDS processing, which would predictably result in a virtual collapse of ITFS processing.

On the former point, the ITFS Parties note the FCC's apparent inclination to combine the processing of all 2.5 GHz band applications (both ITFS and MDS) in one place. Except for certain more ministerial functions,<sup>1/</sup> however, many of the facets of ITFS and MDS processing do not appear to involve common functions that need to be handled by a single staff. On the engineering side, ITFS applications require analysis and approval of both transmitter sites and individual receive sites, while MDS

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<sup>1/</sup> These functions would generally be limited to logging the applications on databases and issuing periodic public notices of receipt.

applications require approval only of transmitter sites. Interference protection issues for ITFS involve receive site by receive site analysis, while MDS applications involve standard protected service areas.<sup>2/</sup> On the legal side, there is no commonality at all. MDS applications raise few issues that require specific legal scrutiny. ITFS applications, on the other hand, raise important legal issues that require the experienced sensitivity now found in the Distribution Services Branch. This is particularly true in view of the advent of a variety of application schemes that result in ostensibly educational entities "fronting" for wireless cable interests. The ITFS Parties insist that the analysis of ITFS eligibility and permissible use issues must continue to be handled by the Distribution Services Branch.

On the latter issue, the ITFS Parties are critically concerned that the processing of ITFS applications not be bogged down by the enormous backlog of MDS applications. While ITFS processing largely went forward in a timely fashion during the period after 1983, the last two years have seen a significant slowing in ITFS processing. Minor change applications have not been routinely processed now for nearly a year, creating a serious problem for existing ITFS licensees who need to make adjustments to their stations' facilities to adapt to changing needs or to resolve minor technical problems. Processing of new ITFS applications and major changes has also virtually

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<sup>2/</sup> It is possible that a single computer program, supported by complete and accurate databases for both ITFS and MDS, could analyze whether interference would be predicted between and among both ITFS and MDS facilities. This processing function could therefore also be combined, especially in view of the necessity of MDS applicants on the E, F and H Groups to protect ITFS receive sites.



ground to a halt over the last six months, as hundreds of wireless cable-backed ITFS applicants reflecting dubious educational commitment have flooded the FCC.<sup>3/</sup>

The experiences of the University of Maine System and the State of Wisconsin-Educational Communications Board are instructive of the current ITFS processing problems. The University of Maine System currently operates a two-channel ITFS system composed of 30 stations that delivers 40 college courses each week throughout nearly the whole state. One last region of the state has been without ITFS service--the sparsely populated western area--because ITFS applications filed in January of 1991 were not acted on until the past several weeks. Moreover, the University needs to add a third channel at each location, which would permit an additional 20 courses. These courses were intended to start June 1, 1992. The third channel applications were filed beginning in mid-1991; yet only a few them have been granted, despite numerous informal efforts by the University to let the FCC know of its critical need.<sup>4/</sup> It now appears that the University will likely have to cancel plans throughout most of the state scheduling new courses for the Fall of 1992.

In Wisconsin, the Educational Communications Board has had applications pending since August of 1991 for three minor modifications, one major modification and

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3/ We have been told, for instance, that there is not likely to be another ITFS cut-off list issued through the end of 1992, a fact that maroons numerous important educational proposals already on file.

4/ The University believes it has been prejudiced because it complied in good faith with the FCC's rule (Section 74.902(d)) which urges applicants not to apply for more channels than they intend to construct within a reasonable time. The University now regrets not simply having filed for four channels up front, as most other ITFS applicants appear to have done.

one new station, which facilities would comprise a five-station ITFS system serving the rural area in northwest Wisconsin within the district of Wisconsin Indianhead Technical College ("WITC"). ECB intended to construct and test the system prior to the end of the 1992 WITC Spring term and to have the system on-line for the Fall term. When there appeared to be little progress at the FCC, ECB even filed a request for expedited processing on March 2, 1992, and then followed up on the request informally. Nevertheless, as of the date of these comments, the FCC has taken action on only one of the minor change applications. Now it appears that plans for commencement of use by September of 1992 may have to be put off because of the processing delays. This causes serious disruption of complicated educational plans involving coordination of faculty, student registration and other institutional support.

Unfortunately, these two experiences are hardly unique. The current delay in ITFS processing is damaging the educational promise of ITFS. Thus, it is clear that, whatever action the FCC takes in this matter, it must not add to the processing responsibilities of the Distribution Services Branch unless it takes immediate, dramatic steps to augment the Branch's staffing and processing resources. It would be a tragedy of monumental proportions if the Commission were to further sacrifice the use and development of this educational resource by overlaying the MDS mess on ITFS.

#### Issue 2 - Mileage Separation Standards

The FCC proposes a variety of new technical standards to govern MDS processing. The FCC seems to believe that adopting mileage separation standards would be preferable to the current interference scheme, which relies on a painstaking analysis of desired/undesired signal ratios at receive locations. Thus, applicants would

no longer have to show d/u ratios of 45 db for co-channel stations and 0 db for adjacent channel stations. Instead, new stations would generally have to locate at least 80 kilometers from co-channel stations, and at least 48 kilometers from adjacent channel stations.

The ITFS Parties take no stance on this issue so long as the proposed standards apply only to MDS applications vis-a-vis other MDS applications and existing MDS stations. They strongly oppose the proposal, however, if it would be applied to ITFS,<sup>5/</sup> either in the ITFS versus ITFS or MDS versus ITFS contexts. Mileage separation standards are antithetical to accepted design approaches for new ITFS stations, as many multi-station systems (as well as many stand-alone stations) depend on implementation of stations at distances far closer to co- and adjacent channel stations than permitted by the proposed separation rules.<sup>6/</sup> The separation standards are unusable when evaluating whether new ITFS or MDS stations adequately protect existing and previously proposed ITFS facilities, as many ITFS stations have receive sites

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5/ Although the text of the NPRM, at paras. 11-17, refers generally to use of mileage separation standards for MDS, footnote 19 makes clear that the FCC is contemplating adoption of the same standards for ITFS (Part 74). Also, paragraph 15 reflects a proposal to have MDS stations protect ITFS stations based on separations criteria. The ITFS Parties strongly oppose this approach unless specific receive site protection, as described in paragraph 15, is included in the rule-governing pre-grant processing of MDS applications.

6/ It might be possible to create ITFS mileage separation standards that, if satisfied, would enable a few ITFS applications to be processed without specific receive site protection analyses. However, the separation distances would have to be much larger--such as 100 kilometers for co-channel stations and 75 kilometers for adjacent channel stations. This should not prevent applications proposing stations at closer distances. It would simply mean that stations proposed at closer distances have to specifically demonstrate protection of co- and adjacent channel receive sites utilizing the existing 45 db and 0 db standards.

well beyond 24 kilometers from the ITFS transmitter, and many ITFS stations have transmitters that are mounted at more than 180 meters above average terrain.<sup>7/</sup>

### Issue 3 - Protection of ITFS Receive Sites

In conjunction with the proposal to implement mileage separation standards for MDS applications vis-a-vis ITFS stations, footnote 29 of the NPRM and proposed Section 21.902(c)(3) of the rules suggest that, although MDS applications would be processed and granted based only on mileage separations, MDS licenses would be conditioned on notification and protection procedures for existing ITFS receive sites. The ITFS Parties have several problems with this proposal.

First, as noted above in footnote 5, pre-grant MDS processing should require a showing of predicted protection of ITFS receive sites, even where the transmitter to transmitter mileage separations satisfy the rule. Many ITFS stations operate with receive sites beyond 24 kilometers, and it makes little sense to license MDS stations and permit construction and testing where interference would be predicted to occur. This is not only wasteful of MDS resources (as some stations may be licensed and built where they can never be used), but it puts an unnecessary burden on ITFS stations to defend against actual interference and on the FCC to resolve post-licensing disputes.

Second, with respect to the post-grant procedure, while the ITFS Parties concur with the proposal to require advance notification of the commencement of MDS

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<sup>7/</sup> For example, the University of Arizona has ITFS antennas in Tucson at 601 meters HAAT. Its ITFS station at Sierra Vista, Arizona operates with an antenna at 493 meters HAAT.

transmissions and to require MDS transmissions to cease if actual interference occurs to ITFS receive sites, the procedure requires two modifications. The time period for initial ITFS objection must be extended to at least 120 days. This is because many ITFS stations may not be in use during school recess periods, especially during the summer. If an MDS licensee schedules the station's activation in late spring or early summer, and an affected ITFS receive site is not in use until September, the ITFS operator will be deprived of a chance to notice and complain about interference.

Also, as noted by Commissioner Quello in his separate statement, the proposal to terminate actual interference protection after the initial test period is a radical departure from current policy and will predictably result in the permanent loss of protection for receive sites that may have priority but, for legitimate reasons, do not experience interference during the initial test period, even if it lasts 120 days. This could happen, for instance, where prior proposed ITFS receive sites are not yet licensed or constructed at the time of the commencement of MDS transmissions, or where seasonal propagation changes (caused by such things as winter defoliation) result in interference problems that did not show up earlier. The ITFS Parties believe that ITFS receive sites with licensing priority should be permanently protected, although they are willing to see the automatic MDS shutdown procedures limited to the 120 day test period. After 120 days, the ITFS party would be obliged to demonstrate actual interference to the Commission, which, if satisfied that the interference is occurring, would obligate the MDS licensee to take whatever steps are necessary to resolve the interference problem.

#### Issue 4 - ITFS Petitions to Deny MDS Applications

Although the NPRM is not entirely clear on this issue, the FCC appears to propose in footnote 43 that ITFS entities not be permitted to file petitions to deny against MDS applications. (The footnote could also be read simply to propose the elimination of the current MDS notification requirements and the extra time now allowed for ITFS petitions to deny MDS applications on interference grounds.) Obviously, ITFS operators must be allowed to object to potentially interfering MDS proposals. However, the ITFS Parties believe that they are capable of evaluating MDS proposals that appear on public notice and filing any objections within the standard 30-day period allowed for petitions to deny. Indeed, many of the ITFS Parties would be pleased to be relieved of the burden of evaluating reams of ITFS interference studies now being showered on them by application mills. So long as public notices of the acceptance (or tentative selection) of MDS applications clearly state pertinent details (such as location, channels, transmitting height and power), and so long as copies of these applications are readily available for public inspection and copying, no special notice and time considerations are necessary for protection of ITFS operations.

#### Issue 5 - MDS/ITFS Databases

Finally, in paragraph 22 of the NPRM, the FCC proposes to construct databases for processing purposes comprised of all MDS and ITFS applications and licensed facilities, including registered ITFS receive sites. The ITFS Parties applaud this proposal as a necessary step towards reliable and swift processing of applications.

However, there are two concerns. First, the FCC's already on-going collection of information on ITFS facilities is seriously flawed because the FCC did not

consult with ITFS interests prior to beginning the process. As a result, it did not collect all of the information reasonably necessary for fully automated processing. For example, the data collection form did not request information on the antenna heights of ITFS transmitting or receive site antennas. Thus, the database will be incapable of supporting computerized line-of-sight calculations. Furthermore, the FCC did not pre-announce the program publicly or provide enough time for licensees to respond. Many licensees thus received the FCC's information requests and were forced to respond so quickly (sometimes for dozens of stations) that accuracy or completeness may have been compromised. The ITFS Parties believe the FCC may have to start the process all over again.

Second, the FCC in paragraph 22 proposes to put only the MDS portion of the eventual databases out for public comment and correction, not the ITFS portion. The ITFS Parties urge that the ITFS database should also be made available for review and comment, especially in view of the data collection problems noted above. Otherwise, there is no way for ITFS applicants and licensees to ensure that their facilities will be properly considered in the FCC's processing of future applications, to the detriment of both MDS and ITFS interests.

Conclusion

The ITFS Parties urge that new processing rules be adopted consistent with the concerns and suggestions put forth in these comments.

Respectfully submitted,

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